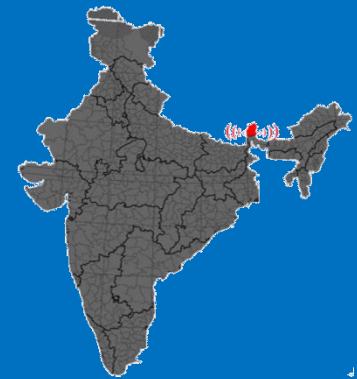
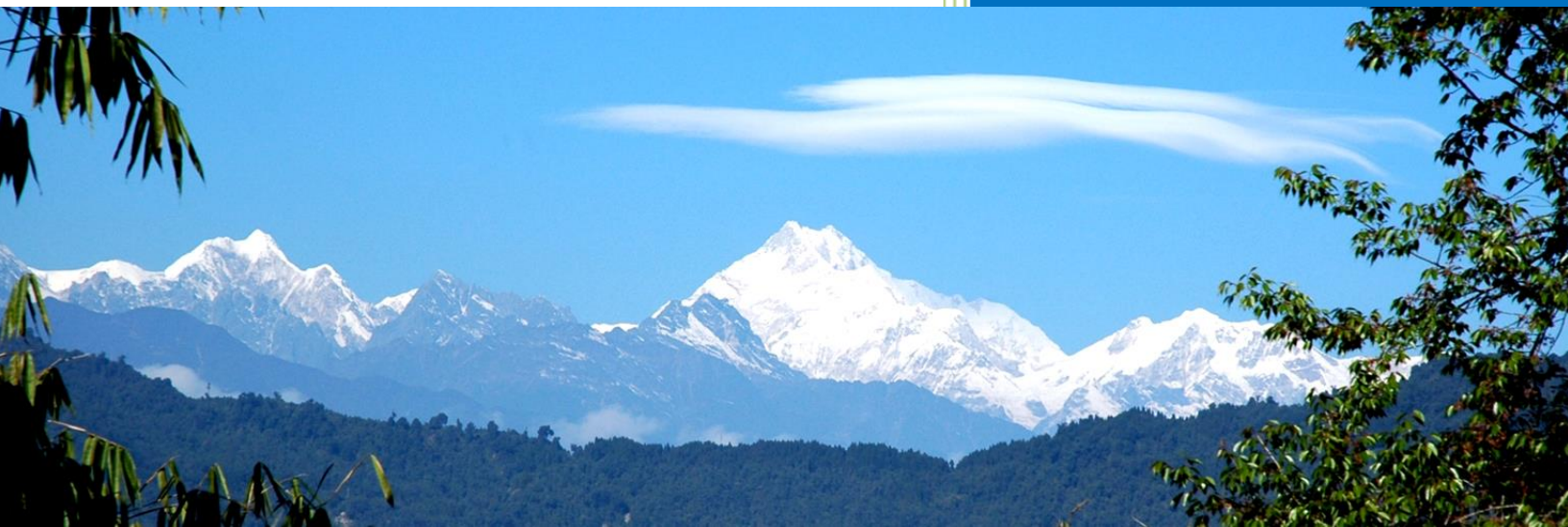




Government of India  
Ministry of Environment, Forest & Climate Change  
(EI Division)

2014-15

# Annual Progress Report



*Hosted by*

Forests, Environment & Wildlife Management Department  
Government of Sikkim  
Gangtok

**ENVIS CENTER SIKKIM**  
*On Status of Environment &  
Related Issues*

(STATE GOVERNMENT CENTER)



**Government of India**  
**Ministry of Environment, Forests & Climate Change**  
**(EI Division)**



# **ANNUAL PROGRESS REPORT 2014-15**

(1<sup>st</sup> April 2014 – 31<sup>st</sup> March 2015)

**OF**

## **ENVIS CENTER SIKKIM**

*On Status of Environment & Related Issues*  
**(STATE GOVERNMENT CENTER)**



*Hosted by*  
Forests, Environment & Wildlife Management Department  
Government of Sikkim  
Deorali, Gangtok – 737101

Website URL: [www.sikennis.nic.in](http://www.sikennis.nic.in)  
Email ID: [sik@ennis.nic.in](mailto:sik@ennis.nic.in)  
Tel (O): 03592 280381  
Fax: 03592-281778, 280381



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Government of India  
Ministry of Environment, Forest and Climate Change  
(EI Division)

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**Annual Progress Report 2014-15 on Activities of ENVIS Centre Sikkim**

<b>1. Name of Host Organization:</b>	Forests, Environment and Wildlife Management Department, Government of Sikkim, Gangtok												
<b>2. Assigned Subject Area:</b>	On Status of Environment & its Related Issues												
<b>3. Date/Month/Year of establishment of ENVIS Centre:</b>	MoU dated 23/03/2002 Established vide letter No: 13(1)/WB/2002 – ENVIS dated: 25/06/2002.												
<b>4. Name and designation of ENVIS Coordinator (2014-15):</b>	B. B. Gurung, Joint Director (Environment & Soil Conservation)												
<b>5. Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre?</b>	Yes												
<b>Composition of the Advisory Committee:</b>	<table border="0"> <tr> <td>1. Dr. Thomas Chandy, IFS PCCF-cum Pr. Secretary</td> <td>Chairperson</td> </tr> <tr> <td>2. Shri C.S. Rao, IFS CCF (T/HQ)</td> <td>Member</td> </tr> <tr> <td>3. Shri J.B. Subba, IFS Director (KNP/KBR)</td> <td>Member</td> </tr> <tr> <td>4. Dr. Gopal Pradhan Pr. Scientist (SPCB)</td> <td>Member</td> </tr> <tr> <td>5. Shri. D. T. Bhutia Addl. Director (TT), DST&amp;CC</td> <td>Member</td> </tr> <tr> <td>6. Shri B.B. Gurung Joint Director (E&amp;SC)-cum- Programme Coordinator (ENVIS)</td> <td>Member Secretary</td> </tr> </table>	1. Dr. Thomas Chandy, IFS PCCF-cum Pr. Secretary	Chairperson	2. Shri C.S. Rao, IFS CCF (T/HQ)	Member	3. Shri J.B. Subba, IFS Director (KNP/KBR)	Member	4. Dr. Gopal Pradhan Pr. Scientist (SPCB)	Member	5. Shri. D. T. Bhutia Addl. Director (TT), DST&CC	Member	6. Shri B.B. Gurung Joint Director (E&SC)-cum- Programme Coordinator (ENVIS)	Member Secretary
1. Dr. Thomas Chandy, IFS PCCF-cum Pr. Secretary	Chairperson												
2. Shri C.S. Rao, IFS CCF (T/HQ)	Member												
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5. Shri. D. T. Bhutia Addl. Director (TT), DST&CC	Member												
6. Shri B.B. Gurung Joint Director (E&SC)-cum- Programme Coordinator (ENVIS)	Member Secretary												

**Office Order Constituting Advisory Committee for ENVIS Centre Sikkim**



GOVERNMENT OF SIKKIM  
DEPARTMENT OF FOREST, ENVIRONMENT & WILDLIFE MANAGEMENT  
FOREST SECRETARIAT, DEORALI, GANGTOK 737102

No. 1119/ADM/FEWMD

Dated: 21/03/2015

OFFICE ORDER

Consequent upon the approval of the Competent Authority, an Advisory Committee comprising of the following officers is hereby constituted for necessary guidance and review of the activities of the ENVIS Centre on *Status of Environment & Its Related Issues* hosted by the Forest, Environment and Wildlife Management Department, Government of Sikkim;

1. Dr. Thomas Chandy, IFS	PCCF-cum Pr. Secretary	Chairperson
2. Shri C.S. Rao, IFS	CCF (T/HQ)	Member
3. Shri J.B. Subba, IFS	Director (KNP/KBR)	Member
4. Dr. Gopal Pradhan	Pr. Scientist (SPCB)	Member
5. Shri. D. T. Bhutia	Additional Director (TT), DST&CC	Member
6. Shri B.B. Gurung	Joint Director (E&SC)	Member Secretary

The above Advisory Committee shall meet at least twice in a year for oversight/review of the activities of the ENVIS Centre including carrying out peer review of its information/ knowledge products, and also formulate Annual Plan of Activities for relevant prospective year.

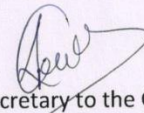
Sd/  
(Dr. Thomas Chandy) IFS  
PCCF-cum-Principal Secretary  
Forest, Environment & Wildlife Management Department





Memo No. 4702-4711/ADM/FEWMD

Dated: 21/03/2015

Copy to :

- 1) All the officers concerned above
- 2) Principal Secretary to HCM
- 3) Assistant Director, MoEF (EI Division), Government of India
- 4) PS to Hon'ble Minister, FEWMD
- 5) PS to Chief Secretary
- 6) File
- 7) Guard File

  
Deputy Secretary to the Government  
Forest, Environment & Wildlife Management Department

6. Current ENVIS Staff Structure:								
Name	Position held	Qualification and Experience	Joining Date in ENVIS Centre	Joining Date in current position	2014-15			
					Leaving Date (if applicable)	Emoluments drawn (Rs.)		
						Monthly	Annual	
Mr. Rajen Pradhan 	Sr. Programme Officer	B. Tech (Computer Sc.) with nine years experience in environment information technology	17/04/2006	20/03/2009	-	30,630/-	3,67,560/-	
Mr. Laxuman Darnal 	Information Officer cum Programme Assistant	PG (Diploma) in Computer Sc. with nine years experience in ENVIS	18/08/2006	20/03/2009	-	24,990/-	2,99,880/-	
Ms. Renu Gurung 	IT Assistant cum Data Entry Operator	BA Graduate with Diploma in computer applications	16/09/2011	1/04/2013	-	14,400/-	1,72,800/-	
Ms. Tulsha Gurung 	Data Entry Operator <i>(Additional manpower attached to ENVIS by the host department)</i>	Matriculation with Diploma in computer application	02/12/2013	02/12/2013	-	8,500/-	1,02,000/-	<i>Supported by the host department</i>

7.	Mandate of the Host Organization	Mandate of the ENVIS Centre
	The primary mandate of the host department is protection & conservation of Forests, Environment & Wildlife in the State.	To collect, collate, store in retrieval system and disseminate data and information on "Status of Environment & Related Issues"

**8. Databases:****8.1. Catalogue of Non-numeric Databases compiled by the ENVIS Centre till date:**

Name of Database	Description (in brief)	Data type (descriptive/graphical/geospatial/etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Opportunities and Challenges, Agrobiodiversity of Sikkim Himalaya	Descriptive	2013	Agriculture Deptt, journals, Govt. publications	Yes
Pollution	Air, water, noise, solid waste	Descriptive	Monthly up to 2014	SPCB	Yes
Biodiversity	Comprehensive database on floral and faunal diversity of Sikkim	Descriptive, geospatial	Book published in 2012, updated up to 2014	Govt publication	Yes
Orchid diversity of Sikkim	Comprehensive details of 557 orchid species	Descriptive	2014	Forest deptt	Yes
Climate Change in Sikkim	Comprehensive study report on in-depth research by several scholars	Descriptive	Book published in 2012, data updated up to 2015	Govt publication	Yes
Demography	Analysis on Population study of Sikkim	Descriptive, graphical	2011 Census	Census of India	Yes
Disaster	History of Earthquakes, landslides, forest fires	Descriptive	2014	Disaster Management Department, Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study	Descriptive	2014	Forest deptt	Yes
Energy	Electricity and energy consumption	Descriptive	Annual up to 2013	Power and Energy Deptt	Yes
Environment	EIA, EMP, EC, public hearingt, carrying capacity study report	Descriptive	2015	Forest deptt	Yes
Forest Resources	Forest types, SFRs, JFMCs, EDCs	Descriptive	2014	Forest deptt	Yes
Land and Water Resources	Wetlands, Wasteland, rivers, landslide and soil treatment	Descriptive	2013	SAC, ISRO Forest deptt	Yes
Wildlife	PAs, KNP, eco-sensitive and conservation zones	Descriptive	2014	Forest deptt	Yes
Soils and Minerals	Status of mineral development in Sikkim	Descriptive	2013	Mines Minerals and Geology Deptt	Yes
Sericulture	Mulberry, muga and eri culture practices in Sikkim	Descriptive	2014	Forest deptt	Yes

## 8.2. Catalogue of Numeric and Time-series Databases compiled by the Centre till date:

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Area, Production and Productivity of Rice, Wheat, Maize, Finger Millet, Barley, Buckwheat, Pulses, Oilseeds	Annual (2003-04 to 2013-14)	Food Security & Agriculture Development Deptt	Yes
Air Quality of Gangtok	SPM, SO <sub>x</sub> , NO <sub>x</sub>	Annual (2014)	SPCB	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly (2011, 2012, 2013, 2014)	SPCB	No
Biodiversity	Statistics on species availability	Annual up to 2014	Forest deptt	Yes
Climate	Temperature, rainfall etc	Monthly, Annual 1996-2014	IMD	Yes
Demography	Demography statistics	2001, 2011	Census of India	Yes
Earthquakes	History of Earthquakes	1839 -2013	Disaster Management Deptt	Yes
Forest Fire Cases	Forest fire cases in Sikkim	2004 – 2014	Forest deptt	Yes
Electricity Consumption	Category wise consumption	Annual, 2008-09 to 2011-12	Power & energy deptt	Yes
Energy Consumption	Power from National grid, hydel power generation	Annual 2002-03 to 2011-12	Power & energy deptt	Yes
Forest Statistics	Forest cover statistics of Sikkim	1987 to 2014	FSI	Yes
Wetlands of Sikkim	Altitude wise no of lakes and area	2003 and 2011	SAC, ISRO, Ahmedabad	Yes
Mineral Reserves in Sikkim	Status of mineral development in Sikkim	Annual, 2013	Mines, Mineral and Geology Deptt	Yes
Protected Areas of Sikkim	Profile of Wildlife sanctuaries and National Park	2014	Forest deptt	Yes
Disaster	History of Earthquakes, landslides, forest fires	2014	Disaster MgmtDeptt. Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study	2014	Forest deptt	Yes
Energy	Electricity and energy consumption	Annual up to 2012	Power and Energy Deptt	Yes



### 8.3. New Databases developed during the previous Financial Year (2014-15)

#### 8.3.1. Non-numeric Databases:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Opportunities and Challenges of the Globally Important Traditional Agriculture Heritage Systems of the Sikkim Himalaya	Descriptive	2013	Govt publication	Yes
Biodiversity	Pteridophytic wealth of Sikkim	Descriptive	2014	Govt publication	Yes
	List of 11 Oak varieties in Sikkim	Descriptive	2014 updated	Forest deptt	Yes
	The Orchid Diversity in Sikkim and Effect of Change of Environment on the Distribution of Native Orchids in Sikkim Himalaya	Descriptive	2014	Govt publication	Yes
	Alien plants found in Sikkim	Descriptive	2013	HARC, Forest Deptt	Yes
Disaster	Forest Fire Cases in Sikkim	Descriptive	2014	Forest Deptt	Yes
KNP	Management plan (2008-2018) of Khangchendzonga National Park	Descriptive, geospatial, graphical	Updated in 2014	Forest Deptt	Yes
Wildlife	Eco-Sensitive Zones in Sikkim	Descriptive, graphical	2014	Govt publication	Yes
Sericulture	Beneficiaries	Descriptive	2014		Yes





#### 8.3.2. Numeric and Time-series Databases:

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Area, Production and Productivity of Rice, Wheat, Maize, Finger Millet, Barley, Buckwheat, Pulses, Oilseeds	2013-14	Food Security & Agriculture Development Deptt	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly up to 2013	SPCB	No
Climate data	Daily weather report and four days forecast of Gangtok town	Daily basis	IMD	Yes
Rainfall	District wise rainfall data	2009-2013	IMD	Yes
Pollution	Industrial Air Pollution	2013	SPCB	Yes

#### 8.4. Status of data entry in ISBEID: (For State/ UT ENVIS Centres) – As in Annex - I

9. Information/ Knowledge Products:

9.1. ENVIS Newsletters published during the previous Financial Year (2014-15):

Cover snapshot	Quarter/ Volume/ Issue/ Theme  Main Articles	Number of copies printed and circulated
	<p>1<sup>st</sup> Qtr (Apr-Jun) Vol. 7, Issue 1 Theme - <i>Environment Event Special</i></p> <p>Paryavaran Mahotsav 2014, World Environment Day 2014, Chief Minister’s Green School Rolling Trophy and Green Schools State Award 2014, The Green Wave 2014</p>	<p>500 nos</p>
	<p>2<sup>nd</sup> Qtr (Jul-Sep) Vol. 7, Issue 2 Theme- <i>Biodiversity and Wildlife Special</i></p> <p>Eco-Sensitive Zones in Sikkim, Sustainable Environment Initiative, Launch of Sikkim Green Roads Mission</p>	<p>500 nos</p>
	<p>3<sup>rd</sup> Qtr (Oct- Dec) Vol. 7, Issue 3 Theme – <i>Cleanliness and Hygiene Special</i></p> <p>Swachh Bharat Swasth Sikkim, Solid Waste profile of Gangtok, Legal framework of solid waste management, house-hold waste management, Integrated healthcare waste management plan</p>	<p>500 nos</p>
	<p>4<sup>th</sup> Qtr (Jan-Mar) Vol 7, Issue 4 Special issue titled <b>PANDA</b></p> <p>72 pages bi-lingual special edition highlights scientific research articles, write-ups, observations and notes on flora, fauna, ecotourism, wildlife, climate change and other important environment issues over the year 2014-15 of Sikkim State. The newsletter is a compilation of articles received from foresters, environmentalists, scientists, scholars, students and volunteers.</p> <p><i>Cover snapshot of 2013-14 Issue</i></p>	<p>1500 nos (under preparation, to be released on World Environment Dat 5<sup>th</sup> June 2015)</p> <p><i>Financial support from the host organization</i></p>

## 9.2. Other publications/ information products brought out during the previous Financial Year (2014-15):

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated
	<p><b>ECO CLUB HANDBOOK 2014-15</b></p> <p>The book has been prepared by ENVIS and officially released by the Hon'ble Minister Forest. This publication is for about 800 Eco-club schools in Sikkim as a guideline for implementing the National Green Corps programme of the ministry. The book is also the guideline for eco-club schools for participating in the State-level Green Schools Award. This publication is an effort to assist the schools to raise environment awareness and build efficient environment management system at schools.</p>	<p>1000 nos</p> <p><i>Printing costs supported by host organization</i></p>
	<p><b>Activity Booklet on 'Paryavaran Mahotsav 2014'</b></p> <p>Sikkim celebrated the 2<sup>nd</sup> successive Paryavaran Mahotsav 2014. This booklet highlights activities carried out throughout the State though mass public participation. The activities such as plantation drives, cleanliness drives, signature campaigns, Greenathon events and various other activities are highlighted in this publication</p> <p><i>Cover of 2013 edition</i></p>	<p>1000 nos (Under compilation)</p> <p><i>Printing costs supported by host organization</i></p>
	<p><b>Activity Booklet on 'Swachh Bharat Swasth Sikkim'</b></p> <p>This pictorial publication highlights the activities carried out throughout the State of Sikkim with newspaper clips towards the national mission of achieving Swachh Bharat. Sikkim is the first State in the country to achieve 100% sanitation and this publication is an effort to give impetus and momentum to the State's efforts on being a clean and green State.</p> <p><i>Draft cover</i></p>	<p>1000 nos (Under print)</p> <p><i>Printing costs supported by host organization</i></p>

**9.3 Information Products published/ released so far:**

<b>Publication / Product</b>	<b>Theme(s)/ Subject Area(s)</b>	<b>Year of Publication</b>
State of Environment Report	On Status of Environment and its Related Issues	2007
Environment Consciousness in Sikkim	Study report to assess the environment consciousness of citizens of Sikkim	2013
Sacred Grooves of Sikkim	Sacred Grooves	2011
Environmental Initiatives of Sikkim	Environmental Initiatives of the Hon'ble Chief Minister Shri Pawan Chamling	2012
Biodiversity of Sikkim	Exploring and Conserving a Global Hotspot	2011
Climate Change in Sikkim	Patterns, Impacts and Initiatives	2012
Biodiversity Conservation	A concept note	2013
Paryavaran Mahotsav 2013	Environment actions	2013
Forest for Sustainable Livelihood	A concept note	2012
Impact of Landslide and Erosion Control Treatment	Impact of Landslide and Erosion Control Treatment for West and South Districts of Sikkim State	2009 and 2010
Biodiversity - All Creatures Great and Small	Biodiversity - All Creatures Great and Small	2012
An Ecological Study of Pastoralism	An Ecological Study of Pastoralism in the Khangchendzonga National Park	2007
Study of Ecological, Socio-Economic and Livelihood Dimensions of Grazing exclusion in Protected Forests of West Sikkim	Study of Ecological, Socio-Economic and Livelihood Dimensions of Grazing exclusion in Protected Forests of West Sikkim	2012
National Green Corps – Sikkim	School Eco-Club Success Stories from Sikkim	2012
Forest Centenary Pamphlet	Centenary celebrations of Sikkim forest service	2009
Sidkeong Tulku Bird Park	Pamphlet on Sidkeong Tulku Bird Park	2012
PANDA Newsletter	Annual Newsletter – Special edition	2009 to 2014
Quarterly Newsletters	Environment, wildlife, biodiversity, forestry (6 Issues)	2013, 2014
Scientific Journals Published Online (19 nos)	Environment, wildlife, biodiversity, forestry	Since 2007
Carrying Capacity Study of Teesta Basin	Online publication in ENVIS SIKKIM Website	2006
Nomination dossier of Khangchendzonga National Park	Nomination dossier of Khangchendzonga National Park for inscription in the World Heritage site (Online publication)	2014
Management Plan of Khangchendzonga National Park	Management Plan of Khangchendzonga National Park (2008-2018) (Online publication)	2014

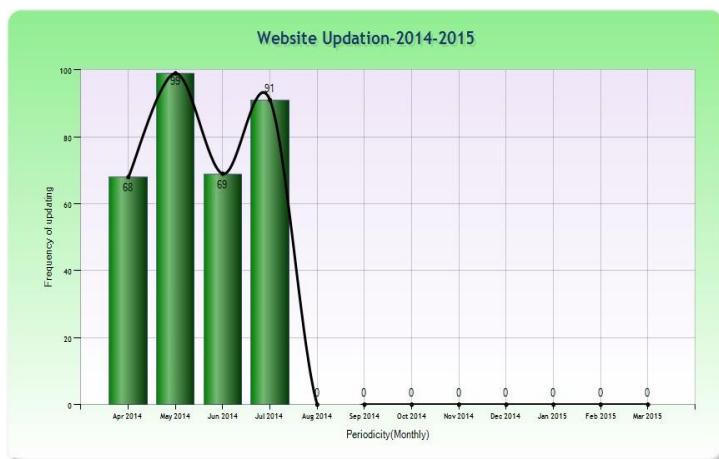
**10. ENVIS Website(ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible):**

**10.1. URL:** [www.sikenvis.nic.in](http://www.sikenvis.nic.in)

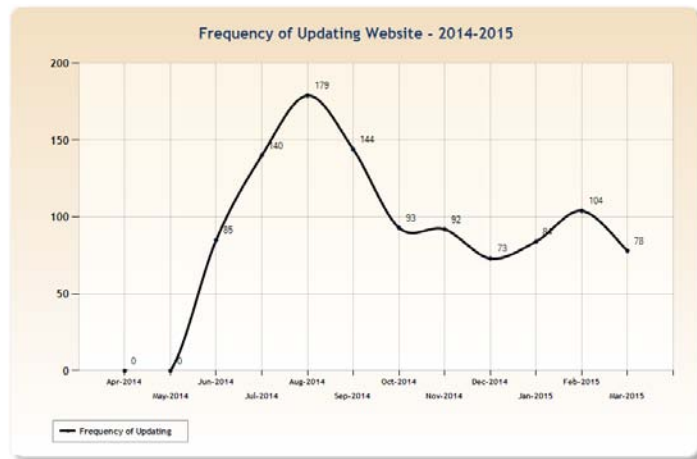
**10.2. Status of restructuring of Website:** Restructured and made live on 26/11/2012

**10.3. Frequency of updating Website 2014-15:** May kindly note that this website server was migration by NIC on 17-July-2014 during the process in which the statistical performance report was reset for FY 2014-15. So the figures and graphs represented below are before and after the server migration for the FY 2014-15.

The monthly average frequency of updation for 2014-15 is **114 updates per month**. Total **1366 updates** were made during 2014-15.



(Before Migration: 1-04-2014 to 17-07-2014)



(After Migration: 17-07-2014 to 31-03-2015)

Cumulative data table showing frequency of updates for 2014-15

Months	Publications	Subject Area	Glossary	Bibliography	Major Activity	Kids Centre	Upcoming Events	Latest News	Photo Gallery	Frequency of Updating
Apr-2014	2	11	32	0	1	0	12	10	0	68
May-2014	0	29	44	9	0	5	10	2	0	99
Jun-2014	5	31	44	0	9	0	38	27	0	154
Jul-2014	61	29	44	0	0	1	34	15	40	224
Aug-2014	0	21	13	0	3	3	97	37	0	179
Sep-2014	19	7	10	21	42	0	10	12	18	144
Oct-2014	13	10	16	31	1	1	4	3	14	93
Nov-2014	14	49	0	10	2	0	7	7	0	92
Dec-2014	2	9	0	20	1	0	14	5	18	73
Jan-2015	5	26	0	0	1	4	8	10	30	84
Feb-2015	6	16	0	52	4	0	9	7	10	104
Mar-2015	4	16	0	14	6	6	16	7	0	26
<b>Total</b>	<b>131</b>	<b>254</b>	<b>203</b>	<b>157</b>	<b>70</b>	<b>20</b>	<b>259</b>	<b>142</b>	<b>130</b>	<b>1366</b>

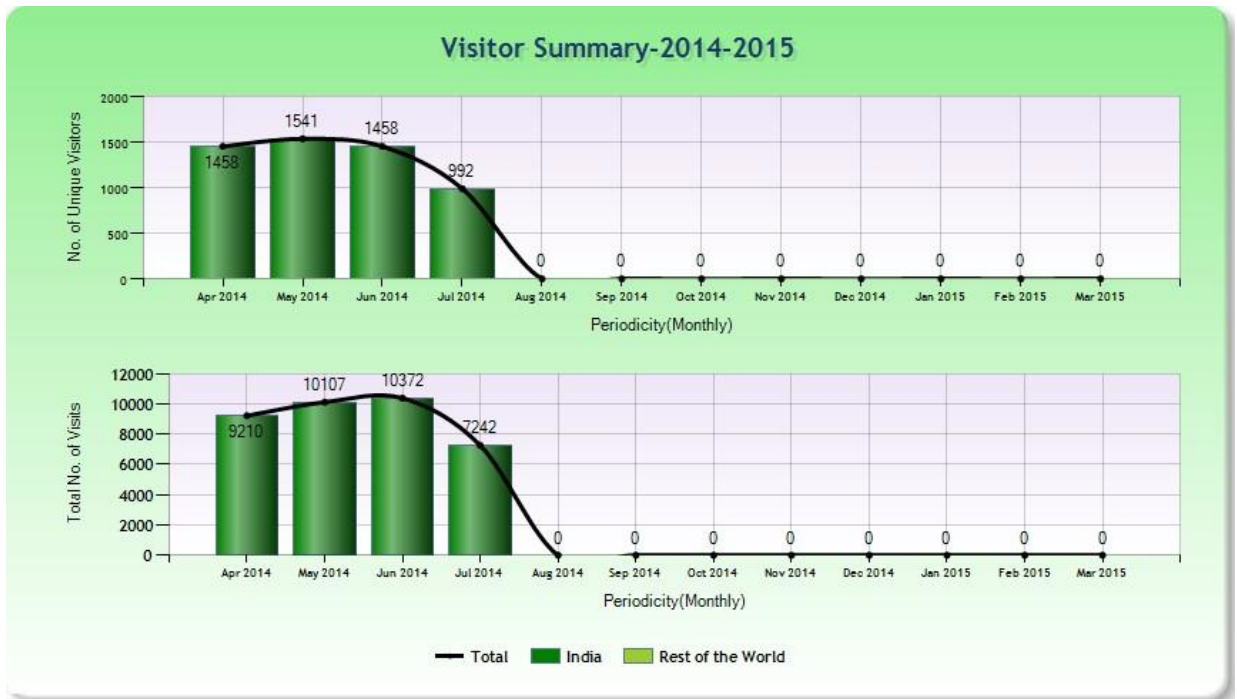
**10.4. Subject-specific database updation (numeric/ others):** 254 updates were made during 2014-15 alone in the subject-specific database

**10.5. Publication uploaded/ updated on Website:** 131 updates(including journals, pamphlets, newsletters and book publication by ENVIS and from various sources)

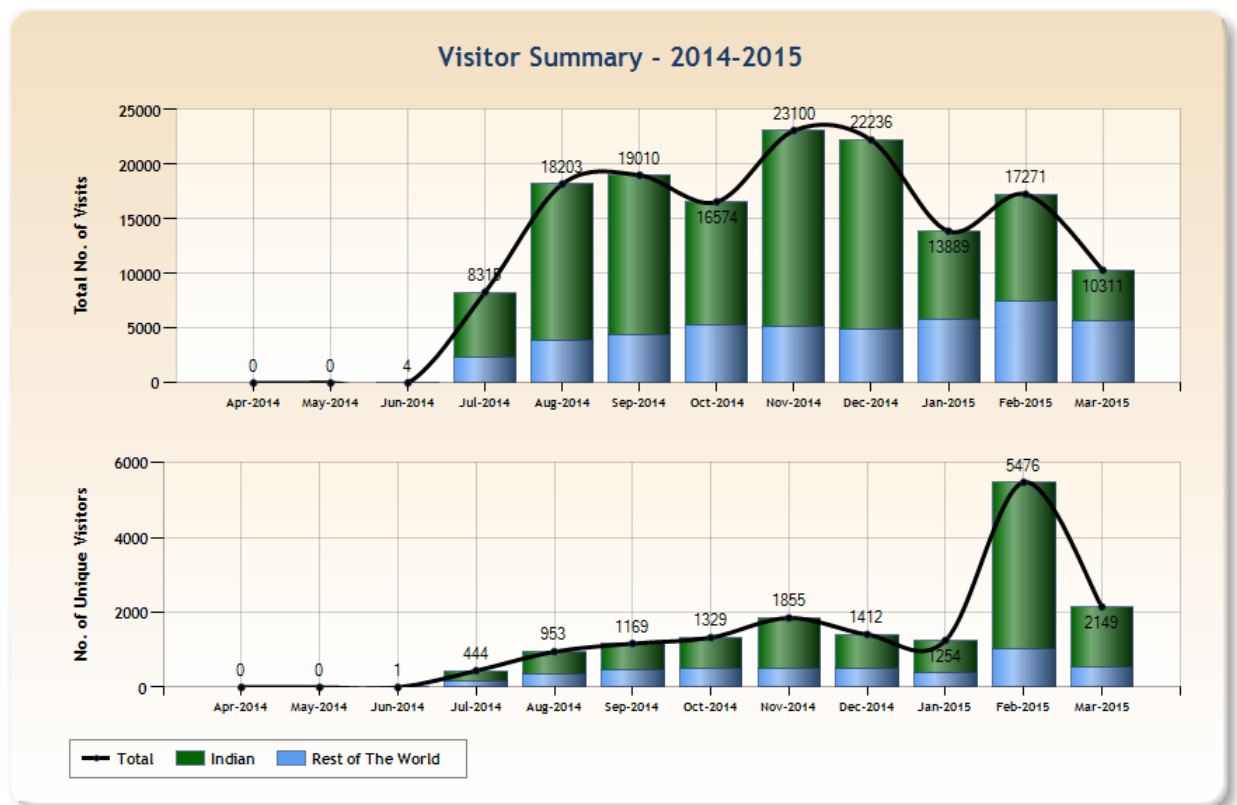
**11. User Engagement and Interaction 2014-15** (ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible):

**11.1 Total number of visits on Website (2014-15): 1,78,575 nos**

**11.2 Number of unique visits on Website (2014-15): 17,527 persons**



(Before Migration: 1-04-2014 to 17-07-2014)

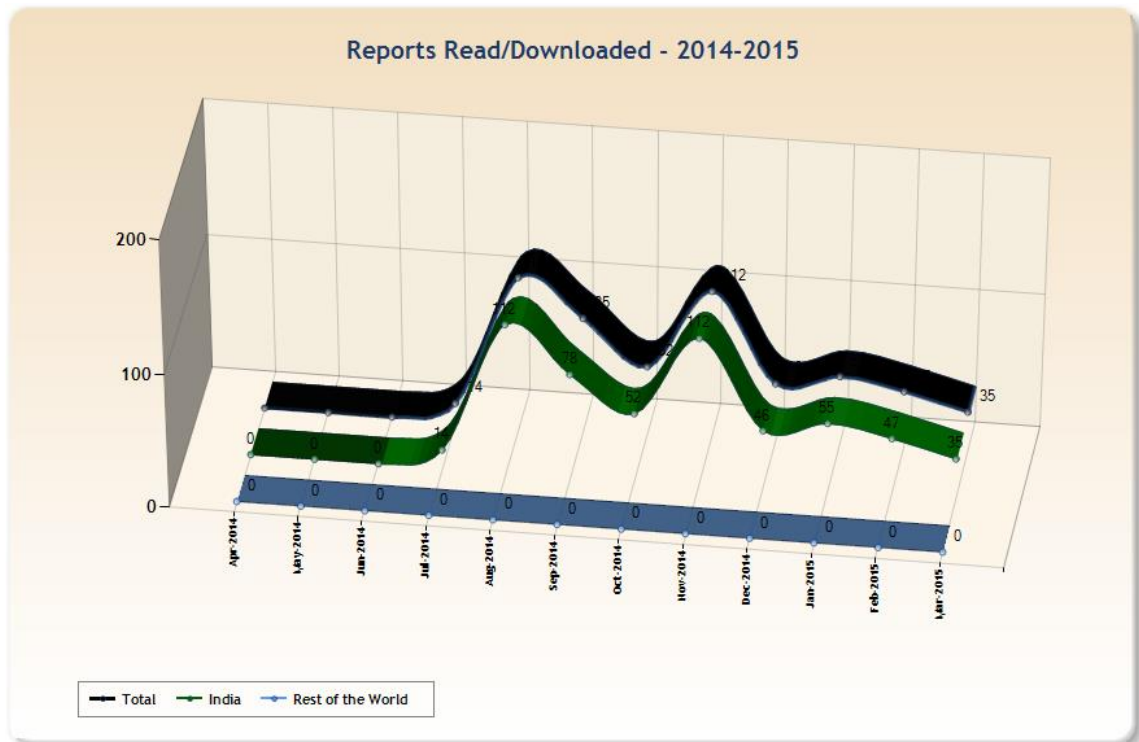


(After Migration: 17-07-2014 to 31-03-2015)

**11.3 Number of reports downloaded/ read by stakeholders:**

Total 690 downloads is observed during 2014-15 in which about 70% of the downloadable items have been accessed from the Publications module and about 28% of the items have been downloaded from the subject area module.

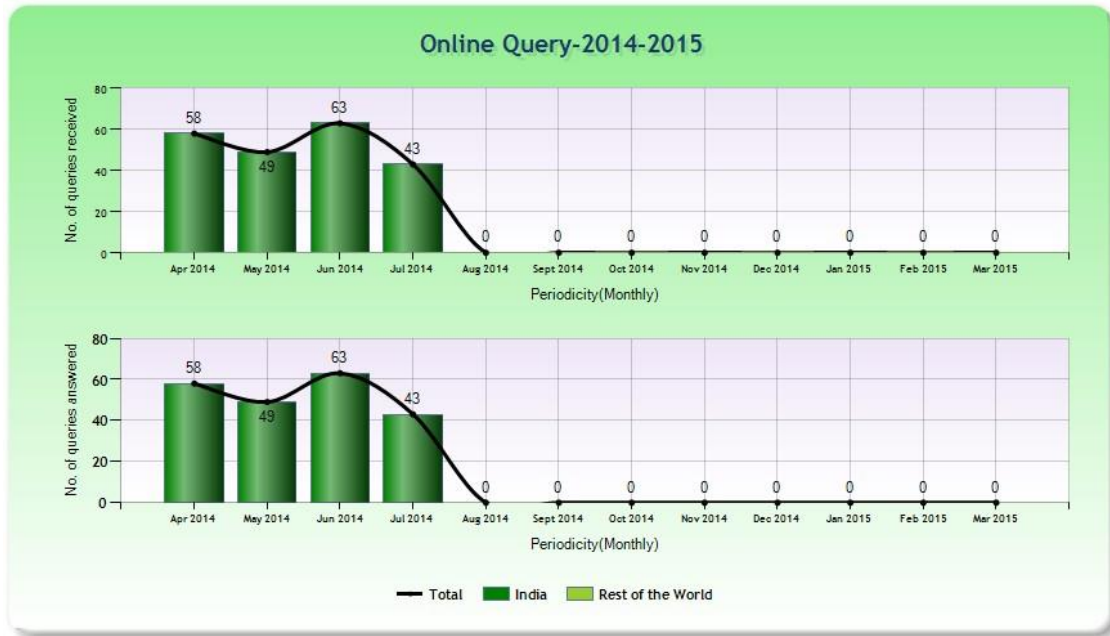
Months	Latest News			Major Activity			Kids Centre			Publications			Subject Area			Report Read/Downloaded		
	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total
Apr-2014	6	0	6	0	0	0	0	0	0	10	3	13	3	0	3	19	3	22
May-2014	6	1	7	0	0	0	0	0	0	13	0	13	40	0	40	59	1	60
Jun-2014	10	0	10	3	0	3	0	0	0	22	6	22	9	0	9	44	6	50
Jul-2014	3	0	0	0	0	0	0	0	0	16	0	16	26	0	26	54	0	54
Aug-2014	0	0	0	2	0	2	0	0	0	81	0	81	25	0	25	112	0	112
Sep-2014	3	0	3	0	0	0	1	0	1	64	0	71	7	0	7	78	0	85
Oct-2014	0	0	0	0	0	0	0	0	0	45	0	45	7	0	7	52	0	52
Nov-2014	1	0	1	0	0	0	0	0	0	89	0	89	21	0	21	112	0	112
Dec-2014	0	0	0	10	0	0	0	0	0	14	0	14	21	0	21	46	0	46
Jan-2015	1	0	1	0	0	0	0	0	0	39	0	39	14	0	14	55	0	55
Feb-2015	1	0	1	0	0	0	0	0	0	22	0	22	24	0	24	47	0	47
Mar-2015	1	0	1	1	0	1	0	0	0	10	0	10	23	0	23	35	0	35



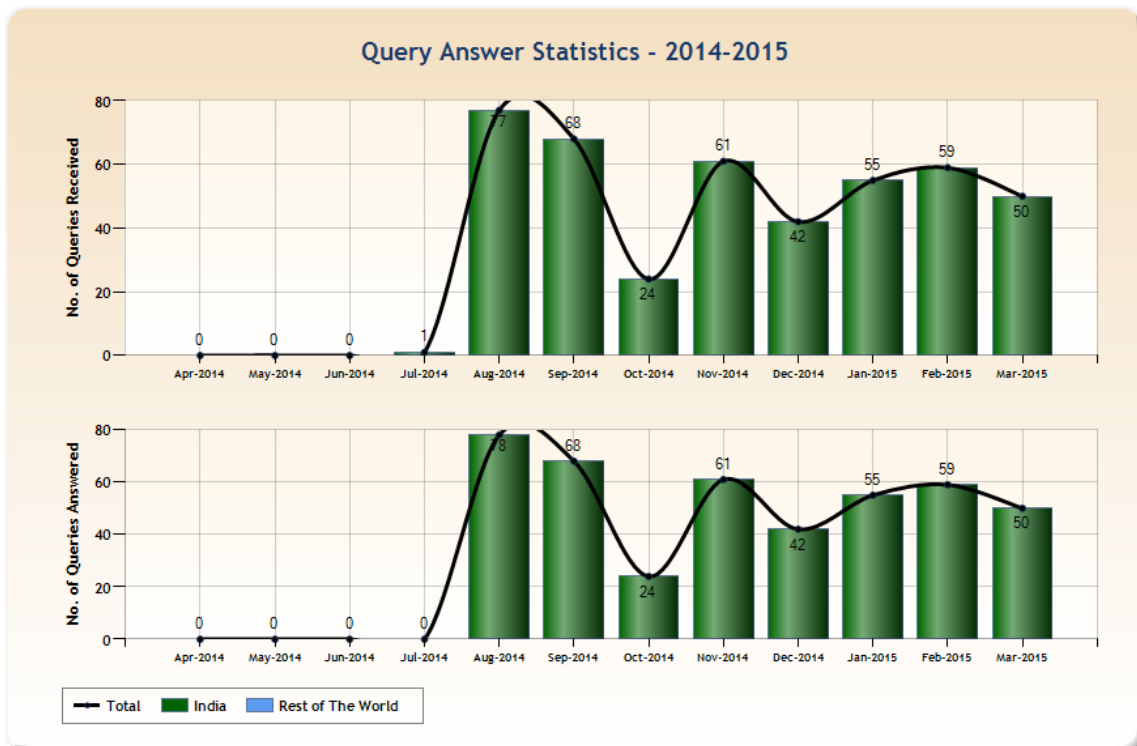
(After Migration: 17-07-2014 to 31-03-2015)

**11.4 Query-Answer Statistics 2014-15:**

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
<b>Online</b> (CMS based website)	607	607	-
<b>Email</b> (official NIC server)	213	213	-
<b>Postal</b> (incl. hand post)	122	122	-
<b>Physical</b>	258	258	-



(Before Migration: 1-04-2014 to 17-07-2014)



(After Migration: 17-07-2014 to 31-03-2015)



**12. Implementation of Annual Plan of Activities of the previous Financial Year (2014-15):**

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
<b>Activities as per Centre's Annual Work Plan for 2014-15</b>		
Preparation of State of Environment Report (SoER) - Sikkim	Proposal approved by the Ministry and accorded sanction of Rs. 30.97 lakhs as non-recurring grant. ENVIS will prepare the SoE Report for Sikkim in collaboration with an expert institution at Development Alternatives, New Delhi. MoU prepared.	Sanction accorded only on December 2014.
Comprehensive database on State's biodiversity resources ➤ 557 Orchid species ➤ 11 Oak species ➤ Alien plants of Sikkim ➤ 1022 Medicinal Plants of Sikkim ➤ 552 Birds ➤ 41 Rhododendrons ➤ 28 bamboos	The biodiversity module of the subject area of the website has been populated with the comprehensive data and information collected from several government publications, scientific journals and reports from authentic sources.	-
ISBEID data collection and updation for 2013-14 onwards on all 17 modules	1807 number of updates have been made in the ISBEID module during 2014-15 alone.	
Publication of Quarterly Newsletters on regular basis	Quarterly newsletters published and distributed country wide	
Publication of Natural Resource Atlas 2014 (Thematic Database)	Thematic information have been prepared in collaboration with the Remote Sensing cell of the host department and made available at the centre for use in SoE Report.	Publication withheld due to budget constraint. The maps will be incorporated in the SoE Report accordingly.
Other activities  - Coordinate NEAC and NGC programmes in Sikkim as a Nodal Resource Agency.  - Support the host department in environment awareness programmes in the State with resource materials like pamphlets, brochures etc.	ENVIS successfully supported and coordinated the NEAC and NGC programmes in the State by facilitating 126 NGOs and 766 eco-club schools with needed data and information in the form of resource materials.  ENVIS also supported the 'ParyavaranMahotsav', 'Swachh Bharat Swasth Sikkim' and several other environment awareness programmes during 2014-15.	-

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
<b>(Post-workshop follow-up activities)</b> <b>ENVIS National Workshop - Gangtok, March 2014</b> <b>Suggestions for improvement by Processing Division, MoEF &amp;CC</b>		
<b>A. Regular Activities: Web-based Environmental Information</b>		
<b>Collection and Compilation of Information and Data</b>		
1. Development and regular updation of <i>databases</i> (descriptive, numeric, pictorial, geospatial, etc.) on the assigned subject area and regular uploading of the same in the <i>Subject Area</i> section of the ENVIS Website, after due verification/ authentication, with suitable referencing of data sources.	246 number of updates done in the subject area module of the website during 2014-15. The information content of the subject area are quoted with authentic sources.	-
2. Compilation of <i>Abstracts, Bibliography, News articles, Events, etc.</i> on the subject area and uploading the same in the relevant section of ENVIS Website.	143 bibliography, 203 glossary items, about 50 journals and abstracts uploaded in the website.	-
3. Identification of data gaps and formulation with implementation of action plan to fill them.	Data gaps on authenticity of RET species. Action initiated for support from the experts.	-
<b>Maintenance of ENVIS Website and User Engagement through it</b>		
4. Maintaining the ENVIS Website up-to-date and user-engaging, and as an inventory of authentic and reliable information in the subject area	Centre's website has been kept up to date with frequency of updates averaging to 112 updates per month.	-
5. Query-Response/ Referral service to stakeholders.	About 1200 online, postal, email and in person queries have been handled by the centre during 2014-15.	-
6. Developing and upgrading a Kids' Corner.	Kids corner has been made interactive by uploading quiz section, video gallery and monthly environmental activity highlights and so on	-
7. Maintaining a disaggregated record of visitors, including unique visitors, to the Website.	Website is designed to automatically record visitor's log and is reflected in the performance chart	-
<b>Maintenance of ISBEID and Preparation of State of Environment (SoE) Reports</b>		
8. Development of time series ISBEID databases on 17 parameters (except the ones that are irrelevant to the State Centre) and complement the numeric/statistical databases with analytical reports and descriptive databases on the website of the Centre.	Time series data are regularly fed in the ISBEID system. Total 1807 number of updates were made during 2014-15 alone. Till date more than 5000 updates have been made in the ISBEID module since inception	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
9. Completing updating ISBEID, notably by resolving the problem of lack of conformity between format of data available with State departments and ISBEID porforma.	Exhaustive exercise undergone by the centre to extract data compatible to ISBEID format from the reports collected from the secondary sources. All the modules relevant to Sikkim has data now.	
10. Devising a mechanism for sourcing for ISBEID data on a continuous basis from State Departments concerned and relevant survey and research institutes country-wide.	Line departments have been sensitized about the ISBEID application and the host department has issued letters for coordination.	
11. Referencing and indexing of sources data in ISBEID.	Sources of data in ISBEID highlighted.	-
12. Publishing State of Environment (SoE) Reports for the concerned State/UT with a periodicity of two over a five-year period.	Preparation of SoE report for Sikkim has been initiated through the extended support from the Ministry. Work is expected to complete by the end of 2015.	-
13. Publishing State of Environment (SoE) Reports for metro cities and hotspots.	-	-
<b>Publications and Value-Addition</b>		
14. Publishing 4 <i>Newsletters</i> and uploading the same in the relevant section of ENVIS Website.	Quarterly newsletter published and circulated country wide.	
15. Processing/ analyzing data collected and bringing out value-added information Products	Data collected and analysis report is to be incorporated in the upcoming SoE report.	
16. Collecting books, reports and journals on the subject area; Uploading e-versions of books, reports, etc. on the ENVIS Website. Uploading <i>Abstracts</i> of books, reports, journals and articles of those whose e-versions are not available.	About 200 e-version of the publications relating to status of environment collected from various government sources and published online. <b>ENVIS Sikkim is proudly the official online hosting portal for all government publications related to Environment in Sikkim.</b>	
<b>Reaching-out/Networking Activities</b>		
17. Liaison and coordination with other relevant ENVIS Centres, both State Centres and Thematic Centres, for providing data/ information links in the relevant part of the ENVIS Website (to avoid duplication and conflicts in uploaded information).	Duplicity of information in the website is carefully being handled. Centre is referring to data and information available with other centres and hyperlinks have been placed accordingly. This centre coordinated with CPREEC ENVIS for compilation of Sacred Grooves of India.	
18. Build linkages with other information sources in the country and abroad.	Hyperlinks to other information sources have been placed in relevant web contents.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Providing hyperlinks to the information sources in the relevant part of the ENVIS Website.		
19. Maintaining a list of Experts in the subject area and uploading the same, along with updated C.V., in the relevant section of ENVIS Website.	List of experts updated in the website	CVs of experts being obtained from the experts.
20. Coordination with the Ministry for timely dissemination of relevant and adequate information to stakeholders.	Centre is in frequent communication with the ENVIS Secretariat and other divisions in the ministry for upkeep of information and dissemination.	
21. Formulate strategic plans to generate sources of funds from corporate sector and/ or through subscriptions of Newsletters/ other publications	Being reviewed by the higher authority of the host department	
<b>B. SPECIAL ACTIVITIES</b>		
22. Focus on database development (numeric and descriptive), with due authentication in consultation with Line Departments/ research institutes, etc.	Centre is already in sync with 41 line departments for collection of data and information.	
23. Network and undertake outreach activities with Universities/ Research bodies/ researchers in the State, similar to those of Odisha ENVIS, so that the ENVIS collections/ repositories can be enriched, including with their contact details/ CVs, etc.	Centre is working in several research based activities with expert institutions such as Development Alternatives New Delhi, IFRM-CDF Chennai	
24. Circulate Newsletters and knowledge products to as many stakeholders as possible in the State, especially policy makers/ planners.	Around 1500 copies of quarterly newsletters and other publications have been circulated to ENVIS partners, Sikkim schools, line departments, stakeholders, etc.	
25. Link its Website to other Government Websites; develop the vernacular Website; and undertake other awareness enhancing activities within the State.	Linkages developed with line department websites and other government websites as mandatory activity of the centre.	
26. Maintain a Register for keeping track of queries received and transferred/ answered.	A separate log register is kept at the centre to record visitors, queries and feedback.	
27. Build institutional repositories	Centre has a library that houses more	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
of various types of media related to environmental issues.	than 2000 reports and publications including DVD and media collection on environment issues. Recently centre has collected about 20 international award winning documentary films from CMS VATAVARAN, New Delhi.	
28. Bring out a Brochure on environmental issues to spread awareness about World Environment Day, focusing on forestry/ mining/ Climate Change/ disasters/ etc.	Centre has published several pamphlets, brochures on events and places for quick information for the users. Visitors to the centre are always gifted with such items by the centre.	

13.	<b>New initiatives taken during the previous Financial Year (2014-15):</b>	<ol style="list-style-type: none"> <li>1. Started up with the preparation of SoE Report 2015, the second for the State. First SoER was published by ENVIS during 2007.</li> <li>2. As a <b>Guru Centre</b>, this centre has provided IT support to other ENVIS partners at Jharkand, DMI Bhopal, BSI Kolkata, BHNS and Mizoram ENVIS for dynamic weather reporting, hosting video gallery and other CMS based website related issues.</li> <li>3. ENVIS Centre assisted CPREEC ENVIS at Chennai for bringing out National publication on Sacred Grooves.</li> <li>4. ENVIS Centre assisted Environment Department, Manipur in formulating ecotourism policy for the State.</li> <li>5. ENVIS Centre appointed as the nodal agency in assisting research scholars and authors for bringing out State Government publications on Forest Wildlife in Sikkim and Environment Management in Sikkim.</li> <li>6. ENVIS Centre made nodal in-charge for web updations related to environment for the host department.</li> <li>7. ISBEID data entry undertaken in mission mode and completed data entry for all 17 modules.</li> <li>8. Organized the first ever Environment &amp; Wildlife Film Festival and Forum in Sikkim in collaboration with CMS VATAVARAN.</li> <li>9. Sustainability environment initiative campaign introduced in school eco-clubs with provision of information booklet by the centre.</li> <li>10. ENVIS played the role of Regional Resource Agency of the department for various awareness, extension and training programmes in collaboration with CEE Guwahati, CMS New Delhi, CSE New Delhi and CDF Chennai.</li> <li>11. ENVIS Centre imparted training to about 100 frontline/ field staffs of the host department on efficient usage of online information media including the ENVIS portal.</li> <li>12. ENVIS Centre conducted Green Teacher's Training for 200 school eco-clubs in two batches and published and distributed information booklets.</li> <li>13. ENVIS served the host department as a media house for various events such as World Environment Day, Paryavaran Mahotasav, State Green Mission, Ten Minutes to Earth, Swachh Bahart Swasth Sikkim and other environment awareness programmes in the State.</li> </ol>
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<b>14.</b>	<b>Date of most recent physical verification by the Ministry:</b>	Date: 12/11/2013 by Ms. Vandana Aggarwal, Economic Adviser, MoEF, GoI  Date: 27/03/2014 by Mr. Kumar Rajnish and Mr. Ravi Goswami, ENVIS Secretariat, MoEF(during pre- National Workshop at Gangtok, Sikkim)
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**15. Status of existing hardware:**

	Hardware item	Specification	Sanction Order with Date	Date of procurement
Procured from ENVIS Grant 2013-14	Desktop Computer – 1 No	HP AIO Intel Core i7, 3.40 GHz, 1 TB HDD, 8 GB DDR3 RAM, DVR Writer, 22” display	Sanction No: 11/68/2004 – EI Dated:27/12/2013	17/02/2014
	Multifunction printer-cum-scanner-cum-copier - 1 No.	HP AIO (printer, copier, scanner) Color Laser Jet Pro MFP M176n	-do-	-do-
	UPS – 1 No	600 VA UPS for desktop computer	-do-	-do-

Hardware Procured from ENVIS grant during 2002-03	Hardware provided by the host department, Forests, Environment & Wildlife Management Department, Government of Sikkim
1. Desktop Computer – 2 Nos(P-IV, 1 GB RAM, 80 GB HDD) 2. Printer - 1 No (Laserjet black printer) 3. Scanner – 1 (600 dpi flat bed)	1. Desktop Computer – 1 Nos 2. Printer – 1 Nos 3. Scanner (Flat bed) – 1 Nos 4. All in one printer/ copier/ scanner – 1 No 5. 3 KVA inverter with battery 6. Telephone (landline 03592-280381)

**16. Status of utilization of grant in previous year (2014-15) and reasons for shortfalls, if any:**

	Head of Expenditure	Sanctioned amount (Rs.)	Actual Expenditure (Rs.)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower	8,40,240	8,40,240	-
	Databases, etc.	4,00,000	4,00,000	-
	Travel & Training	40,000	40,000	-
Non-Recurring (SoER)	Preparation of State of Environment Report 2015-Sikkim	30,97,500	-	To be utilized during 2015-16 as the grant was released only on 2 <sup>nd</sup> March 2015

**17. Issues/ hurdles faced in undertaking ENVIS activities:**

17.1.	Many users have been complaining about user login failures in our system. The password recovered after login failure is complicated and difficult to remember. The password reset facility is not available for the users. Request sent to NIC (Miss Afia Parveen) several times but action on this remains pending till date.
17.2.	Data collection for ISBEID platform is challenging and painstaking due to non-availability of readymade data. At most instances, data is retrieved through rigorous and in-depth study of reports from secondary sources which is time taking and hinders timely activity.
17.2	The temporary nature of ENVIS incumbent is highly risky in nature. Job insecurity hinders the effective implementation of the centre. Annual increments or incentives can boost the morale of the hardworking personnel engaged in the centre.

## 18. Proposed Annual Plan of Activities for 2015-16

The annual plan of activities of our centre in summative is enumerated below;

1. Database development on State's biodiversity resources (both flora and fauna)
2. Spatial database development on natural resource atlas of Sikkim.
3. ISBEID data collection and updation for 2014-15 onwards on all 17 modules.
4. Publication State of Environment Report (SoER) 2015: *This will be the second SoER for Sikkim. First publication by ENVIS was made in 2007-08. Our Centre has already signed MoU with Development Alternatives as an expert agency for the preparation of SoE report for Sikkim. The report is expected to be completed during current financial year 2015-16.*
5. Publication of Quarterly Newsletters on regular basis
6. Publication of special edition of 4<sup>th</sup> quarter PANDA newsletter.
7. Publication of Knowledge based products on "Forest Wildlife in Sikkim" and "Environment Management in Sikkim"
8. Integration of Bhuvan based thematic/ spatial data and information in the existing CMS based website.
9. Serve as the nodal in-charge for online updation of data and information on Status of Environment and its related issues pertaining to Sikkim.
10. Coordinate NEAC and NGC programmes in Sikkim as a Nodal Resource Agency.
11. Support the host department in environment awareness programmes in the State with resource materials like pamphlets, brochures, handbooks, posters, banners, flyers, signages etc.

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**Annex - I****Status of data entry in ISBEID: (For State/ UT ENVIS Centres):**

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
I. Adminis- trative	1. General	Name				
		No. of Districts (with name)			✓	
		No. of Mandals/ Tahsils/ Taluks (with name)	✓			
		No. of Blocks (with name)	✓			
		No. of Municipalities (with name)	✓			
		No. of Panchayats	✓			
		No. of Cities with million plus population (with name)	✓			
		No. of Tribal Settlements				
		Elevation above mean sea level (Maximum)	✓		✓	
		Elevation above mean sea level (Minimum)	✓		✓	
		Total geographical area	✓		✓	
		GDP of the state (Sector wise)				
		- Primary	2000, 2005- 2012			
		- Secondary	2000,200 5- 2012			
	- Tertiary	2000,200 5- 2012				
	2. Socio Economics	No. of BPL household in millions	2006		2006	
		% of Household below poverty line	2006		2006	
	3. Climate	Average mean monthly temperature (Max.)		1990- 2000, 2004- 2013		1990- 2000, 2006, 2008- 2014
		Average mean monthly temperature (Min.)		1990- 2000, 2004- 2013		1990- 2000, 2006, 2008- 2014
		Total annual Rainfall		1990- 2000, 2004- 2013		1990- 2000, 2006, 2008- 2014
		Relative Humidity				2006 (E)
	4. Demography	Population (for last 4 decades - 1961 - 71 - 81- 91- 2001)				
		Total Population	1961- 2011		1991- 2011	
		Males Population	1961- 2011		1991- 2011	
		Females Population	1961- 2011		1991- 2011	



Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Density	1961-2011		1991-2011		
		Area in	1961 - 2011		1981-2011		
		No. of females/thousand males (sex ratio)	1961-2011		1991-2011		
		% of Literacy	1961-2011		1981-2011		
		% of population attending school	2001				
		Crude Birth Rate (Nos. per 1000 population)	2001, 2011				
		Crude Death Rate (Nos. per 1000 population)	2001, 2011				
II. Infra-structure	1. Housing	Permanent	2001, 2005, 2011		2001, 2005, 2011		
		Semi- Permanent	2001, 2005, 2011		2001, 2005, 2011		
		Temporary	2001, 2005, 2011		2001, 2005, 2011		
		Average Household Size (Persons per HH)	2005		2005		
	2. Medical and Health Service	No. of Government Hospitals	1990-2015		1990-2015		
		No. of Registered private hospitals/ nursing homes	1995-2015		1995-2015		
	3. Transport	No. of Railway Stations					
		Length of Railway Lines					
		Length of National Highways	1998-2015				
		Length of State Highways	1990-2015		1990-2015		
		Length of other roads	1998-2001				
		No. of Domestic Airports					
		No. of international Airports					
	III. Energy	1. Non-Renewable	Coal power generation				
			Installed Capacity				
			Gas Power generation				
Installed Capacity							
Oil based power generation							
Installed Capacity							
Atomic power generation							
Installed Capacity							
Power from National Grid			2003-2012				
Installed Capacity			2003-2012				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
	2. Renewable	Hydel power generation	1992, 1995, 2000-2012			
		Installed Capacity	1992, 1995, 2000-2012			
		Windmill power generation				
		Installed Capacity				
		Solar photovoltaic power generation				
		Installed Capacity				
		Biogas power generation				
		Installed Capacity				
		Other biomass power generation				
	Installed Capacity					
	3. Electricity Consumption	Industrial and Commercial	2008-2013			
		Agriculture				
		Domestic	2008-2013			
		Others	1998-2012			
	4. Energy Consumption	LPG	2010-2012			
		Other Petroleum Products				
		Coal				
		Natural Gas				
		Other				
	IV. Agriculture	1. Agriculture Area Classification	Total agricultural area			
Area under non-agriculture use			2001-2012			
Barren and uncultivable land			1996-2012			
Permanent pasture / grazing land			1996-2013		1996-2013	
Net irrigated land			1996-2010			
New Sown area			1991, 1996-1999, 2002-2011			
Plantation crops						
Fallow			1991, 1996, 2005-2012			
Area under organic farming thereof						
2. Agriculture		Total production of crops	2000-2011,		2004-2011,	

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
	Production		2013		2013	
		Yield of Kharif Crops %	2000-2011, 2013		2004-2011, 2013	
		Yield of Rabi Crops %	2000-2011, 2013		2004-2011, 2013	
		Yield of other crops %				
	3. Crop Production (plantation crops) (in million tons per annum)	Name				
		Production				
		Rice	1990-2014		1991-2014	
		Sowing Area	1990-1997, 2000-2014		1991-1998, 2000-2014	
		Production	1990-2014		1991-2014	
		Wheat	1992-2014		1992, 1998-2014	
		Sowing Area	1992, 2000-2014		1992, 2000-2014	
		Production	1992-2014		1992, 1998-2014	
		Pulses	1992-2014		1992, 1998-2014	
		Sowing Area	1992, 2000-2014		1992, 2001-2014	
		Production	1992-2014		1992, 1998-2014	
		Total food grains				
		Sowing Area				
		Production				
		Cotton				
		Sowing Area				
		Production				
		Jute & mesta				
		Sowing Area				
		Production				
		Sugarcane				
		Sowing Area				
		Production				
		Tobacco				
		Sowing Area				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Production				
		Oil Seeds	1992-2014		1992-2014	
		Sowing Area	1992-2014		1992-2014	
		Production	1992-2014		1992-2014	
		Cereals	1993-2014		2004-2014	
		Sowing	2000-2014		2004-2014	
		Production	1993-2014		2004-2014	
		Others	1996-2011		1998-2011	
		Sowing Area	1996, 1998, 2005-2011		1996, 1998, 2005-2011	
		Production	1996, 1998, 2005-2011		1996, 1998, 2005-2011	
	4. Fertilizer Consumption	Nitrogen				
		Phosphate				
		Potash				
		Others				
	5. Pesticide Consumption	Insecticides				
		Fungicides				
		Weedicides				
		Rodenticide				
		Fumigants				
		Others				
V. Industries	1. Category of Industry	Total No. of Large Scale Industries	2012			
		Total No. of Medium Scale Industries	2001, 2004, 2012			
		Total No. of Small scale Industries	2001-2012			
		Total No. of Red Category Industries				
		Total No. of Orange Category Industries				
		Total No. of Green Category Industries				
	2. Mining & Quarrying	Iron				
		Copper	1998-2002			
		Lead	1998-2002			
		Zinc	1998-2002			
		Nickel				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Manganese				
		Bauxite				
		Coal				
		Other (Chromite)				
		Name of the Mineral Resources				
VI. Tourism & Heritage	1. Tourism & Heritage	Name and location of Heritage sites			✓	
		Name and location of Religious places/centres			✓	
		Name and location Archaeological monuments/sites			✓	
		Name and location of Scenic Areas			✓	
		Name and location of Tourist Resorts				
VII. Natural Resources	1. Land Use Classification	Total Geographical Area	1990-2015		1990-2015	
		Forest	1996 - 1997, 2005-2013			
		Non-Agriculture use	1996-1997, 2001-2011			
		Barren and uncultivable land	1996 - 2012			
		Permanent pastures and other grazing land	1996-2013		1996-2013	
		Miscellaneous tree crops and groves	1996-2011			
		Cultivable wasteland	1996-1997, 2001-2011			
		Fallow land other than current fallow	1996-1997, 2001-2011			
		Current fallow Net area sown	1996-1997, 2005-2011			
		Gross cropped area				
		Area sown more than once	2001-2011			
		Net irrigated area				
		Gross irrigated area				
		Others	2001-2002, 2005-2011			
		2. Land Degradation	Degraded land area	2005-2012		2006-2012
	Degraded Irrigated land					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Area affected by shifting cultivation	2000-2009, 2015		2000-2009, 2015	
		Deforestation rate				
		Total salt affected land				
		Salinization rate	2000-2009, 2012		2000-2009, 2012	
		Area effected by desertification				
	3. Waste Land	Gullied & or Ravenous Land %	1990-2015		1990-2015	
		Upland with or without Scrub %	2000-2011		2000-2011	
		Water Logged & marshy Land %	1990-2015		1990-2015	
		land affected by Salinity/Alkalinity Coastal/ Inland %	1990-2015		1990-2015	
		Underutilized Degraded Notified Forest Land %	2000-2011		2000-2011	
		Shifting Cultivation Area %	1990-2015		1990-2015	
		Degraded Land under Plantation Crops %	1990-2015		1990-2015	
		Degraded Pastures/Grazing Land %	1990-2015		1990-2015	
		Mining Industrial Wastelands %	1990-2015		1990-2015	
		Sands - Deserted Coastal %				
		Steep Slopping Area %	2001-2004		2001-2004	
		Barren Rocky/Stony Waste/Sheet Rocky Area %	2001-2011		2000-2011	
		Snow Covered and/or Glacial Area %	2000-2011		2000-2011	
	4. Types of Wetlands	Names of wetlands of national importance	2000-2015		2000-2015	
		Names of wetlands of international importance (Ramsar site etc.)				
		Coastal /Estuaries				
		Fresh water Lakes	2005-2015		2005-2015	
		Tanks/Ponds/Reservoirs/Dams	1997-2015		1997-2015	
		Marshes (Tidal/Non-Tidal)				
		Swamps				
		Mangroves				
		Flood Plains				
		Total Area of Wetland	1997-2015		1997-2015	

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Others				
	5. Soil Types	Black Soil				
		Red Soil				
		Desert Soil				
		Grey and Brown Soil				
		Saline & Alkaline Soil				
		Laterite Soil				
		Alluvial Soil				
		Mountain Soil	1990-2015		1990-2015	
		Mix Red & Black Soil				
		Peaty Soil				
VIII. Forest Resource	1. Distribution of Forest Cover	Dense Forest	1990-2013		1998-2012	
		Open Forests	1990-2013		1988-2013	
		Mangroves				
		Trees outside forests	2010-2012			
		Numbers				
		Area in				
		Non Forest	1995-2013		2013	
	2. Recorded Forest	Reserved Forest	1990-2013		2002-2013	
		Protected Forest	1990-2013		2002-2013	
		Unclassed Forest	1990-2001		2002-2001	
	3. Mining in Forests	Bauxite				
		Chromite				
		Copper				
		Iron				
		Manganese				
		Others				
	4. Actual Forest Cover by Density Class	Dense Forest (Crown density Cover Area above 40%) (in ha)	1990-2013		1998-2013	
		Open Forest (Crown density 10- 40% (in ha)	1990-2013		1998-2013	
		Mangrove (in ha)				
	5. Forest Produce	Timber poles	2002, 2005- 2007, 2010- 2011			
		Fuel wood	1997- 2001, 2010- 2011			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Pulp & match Wood				
		Sal seeds				
		Kandu/Bedi leaves				
		Gums & Resins				
		Cane/Rattan & Bamboo				
		Grass /Fodder				
		Drugs/Tannins				
		Spices	1990, 1995, 1988- 1999			
		Lac				
		Others	2002- 2007			
	6. Joint Forest Management Committee	Name of District			2002- 2013	
No. of JFMC		1998- 2013		2002- 2013		
IX. Water Resource	1. Source of Water	Name of River	1990- 2014			
		Total Length	1990- 2014			
		Catchment Area				
		Seasonality (Perennial/Seasonal)	1990- 2015			
		Canals (Length)				
		Reservoirs				
		Tanks, Lakes & Ponds				
		Brackish Water				
		Government Owned Canals				
		Private Canals				
		Tanks				
		Wells				
		Tube Wells				
X. Ground Water Resource	1. Status of Ground Water	Total Replenishable Ground Water Resource	2008- 2010			
		Provision for industrial/ domestic/ other uses	2008- 2011			
		Available Ground Water Resource				
		Net Draft				
		Balance Ground Water				
		Level of Ground Water Development (%)				
		Utilization Ground Water Resource for irrigation in Net terms	2008- 2011			
		Over Exploited	2008- 2011		2008- 2011	



Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Critical Area	2008-2011		2008-2011		
		Gross Draft Estimated on Pro-rata basis	NA		NA		
	2. Categorization of Water Level	Pre-Monsoon average depth to water level					
		Post Monsoon average depth to water level					
		No. of Over Exploited Area	2010-2014		2010-2014		
		total Ground Water Resource					
	3. Use of Ground Water	Quantity of ground water for irrigation					
		Available ground water for irrigation					
		Utilizable ground water for irrigation	2008-2011		2008-2011		
		Net ground water draft	2008-2011		2008-2011		
	XI. Ecology	1. Ecological Areas	Name of Biogeographical Zones	✓			
		2. Ecology Type	Name of National Parks	2006-2015			
Name of Wildlife Sanctuaries			1990-2015				
Name of Bird Sanctuaries			2005-2015				
Name of Tiger Reserves							
Name of Elephant Reserves							
Name of Biosphere Reserves			1998-2015				
Name of Protected Mangroves area (Private & Public)							
3. Botanical Gardens		Name of Botanical Garden					
		Area of Botanical Garden	1998-2015				
		Location	1998-2015				
		Uniqueness					
4. Zoological Parks		Name of Zoological Park	1998-2015				
		Area of Zoological Park	1998-2015				
		Location					
		Uniqueness					
5. Physiographic Features		Mountain Name	1994-2015				
		Height (Meter)	1994-2015				
XII.		1. Hygiene	No. of Town covered	2010-2013			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
Sanitation	& Sanitation	No. of Town not covered				
		Total No. of treatment plants	2010-2013			
	2. Air Borne Disease	Type of Disease	2005-2014		2005-2014	
		Name of Disease	2005-2014		2005-2014	
		No. of Deaths	2005-2014		2005-2014	
	3. Water Borne Disease	Type of Disease	2005-2014		2005-2014	
		Name of Disease	2005-2014		2005-2014	
		No. of Deaths	2005-2014		2005-2014	
	XIII. Water Pollution	1.	River Name			
Location			2001, 2006, 2008, 2010-2011	2010-2013	2001, 2006, 2008, 2010-2011	2010-2013
BOD			2001, 2006, 2008, 2010	2010-2013	2001, 2006, 2008, 2010-2011	2010-2013
COD						
Ph			2001, 2006, 2008, 2010	2010-2013	2001, 2006, 2008, 2010-2011	2010-2013
Total Coliform			2001, 2006, 2008, 2010	2010-2013	2001, 2006, 2008, 2010-2011	2010-2013
Conductivity			2001, 2006, 2008, 2010	2010-2013	2001, 2006, 2008, 2010-2011	2010-2013
			Lake Name	2001		2001
		Location	2001		2001	
		BOD	2001		2001	
		COD	2001		2001	
		Ph	2001		2001	
		Total Coliform				
	Conductivity					
XIV. Air Pollution	1. Industrial	SO <sub>2</sub>				2010-2013
		NO <sub>x</sub>				2010-2013

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Suspended Particulate Matter (SPM)				2013	
		Respirable Suspended Particulate Matter (RSPM)				2013	
	2. Residential	SO <sub>2</sub>				2001, 2003-2004	
		NO <sub>x</sub>				2001, 2003-2004	
		Suspended Particulate Matter (SPM)				2001, 2003-2004	
		Respirable Suspended Particulate Matter (RSPM)					
	3. Vehicular Pollution	No. of Vehicles	1995, 1998-2001, 2003, 2007, 2009		1995, 1998-2001, 2003, 2007, 2009	2009-2012	
		Type of Vehicles	1995, 1998-2001, 2003, 2007, 2009		1995, 1998-2001, 2003, 2007, 2009	2009-2012	
	XV. Bio-diversity	1. Flora	Total Species (RET)	1990, 2007, 2012-2014			
			Redbook species No.				
2. Fauna		Total Species (RET)					
		Redbook species No.					
XVI. Waste	1. Type of Waste	Hazardous waste (HW) in t/a					
		E-waste thereof in t/a					
		Biomedical waste (BMW)	2006, 2008-2009, 2012		2006		
		Municipal Solid Waste (MSW)	2005, 2011, 2012		2005, 2011		
		Plastic Waste					
		Waste Water					
		Treatment/Disposal (for all 5)					
	2. Clean Technology	Type of Industries					
		Name of technology used					
	3. Effluent Treatment Plant/CEPT	Name of District					
		No. of Plants					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
XVII. Disaster	1. Disaster	Type of Disaster	1990, 1995-97, 1999- 2002, 2004- 2006, 2011, 2013		1990, 1995-97, 1999- 2002, 2004- 2006, 2011, 2013	
		Year	1990, 1995-97, 1999- 2002, 2004- 2006, 2011, 2013		1990, 1995-97, 1999- 2002, 2004- 2006, 2011, 2013	
		Affected districts in nos.	1990, 1995-97, 1999- 2002, 2004- 2006, 2011, 2013			
		Population affected (in millions)				
		Damage in crore INR				

Annex - II

**Other Activities**

**Training, Extension  
and Awareness  
Activities by ENVIS  
during 2014-15**

## 1. Green Wave Programme – Participation at a Global Programme



ENVIS Centre Sikkim at Forest, Environment and Wildlife Management Department in association with Centre for Environment Education (CEE), North-East coordinated the Green Wave programme in Sikkim which was participated by about 20 schools across the State through tree planting and other awareness activities on the 22<sup>nd</sup> of May 2014 to mark the International Day for Biological Diversity.

The Green Wave 2014 with the theme “One School, One Tree, One Gift to Nature” was joined by Sikkim eco-club schools with a special tree planting ceremony at 10 AM in their respective school premise. The activities of the schools on that

particular day were uploaded in the green wave website of CBD which was reflected in a global map to represent a green wave.



ENVIS Centre also planted ornamental plants in pots for use in the office premise. The centre coordinated with the participating schools and provided programme posters, flyers and other reading materials on conservation of local biodiversity. The reports were compiled and submitted to the CEE North-Eastern regional cell.

The Green Wave is a global biodiversity campaign that enables young people to make a difference. Green Wave campaign encourages participants to engage in local action, build friendships with other participants around the world and learn about global issues affecting biodiversity.

The Green Wave is celebrated annually on 22 May – the International Day for Biological Diversity. In participating schools, children and youth plant a tree at 10:00 am local time, creating a “green wave” that goes around the world. Participants upload photos and text to the Green Wave website to share their tree planting stories. An interactive map goes live in the evening at 20:20 local time, creating a second “green wave”.



The Green Wave supports the work of the Convention on Biological Diversity to strengthen awareness and education on biodiversity. The Green Wave supports other tree planting initiatives such as the Billion Tree Campaign led by the United Nations Environment Programme

## 2. Chief Minister's Green School Rolling Trophy and State Green Schools Award 2014



ENVIS Centre actively played a role of the resource agency in scrutinizing and screening the reports from about 90 schools for the State's most prestigious award scheme, the Chief Minister's Green School Rolling Trophy and State Green Schools Award 2014. ENVIS Centre has been playing the role of nodal cell in implementing this award scheme in the State since its inception in 2011.

The 2014 awards were presented to seven schools during the State level celebration of World Environment Day on 5<sup>th</sup> June 2014 at Namchi, South Sikkim.

2014 State Awardees		
SN.	SCHOOLS NAME	AWARDS
1.	Govt. Girls' Sr. Sec. School, Namchi, South Sikkim	CM Rolling Trophy/ Certificate/ Cash prize – Rs. 5.00 lakhs
2.	Govt. Secondary School, MelliGumpa, South Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
3.	Govt. Secondary School, Lingchom, West Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
4.	Govt. Secondary School, Lower Samdong, East Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
5.	Govt. Sr. Sec. School, Hee-Gyathang, North Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
6.	Govt. Primary School, Bigyani, South Sikkim	Trophy/ Certificate/ Cash prize- Rs. 50,000/-
7.	Govt. Primary School, Samdur, East Sikkim	Trophy/ Certificate/ Cash prize- Rs. 50,000/-

### 3. Paryavaran Mahotsav 2014 Celebration



ENVIS Centre played active role in coordinating the 2<sup>nd</sup> successive Paryavaran Mahotsav in Sikkim from June 15 to June 30, 2014. This fortnightly event which included the 9<sup>th</sup> Phase State Green Mission and 6<sup>th</sup> Phase Ten Minutes to Earth programme was carried out throughout the State through active participation of local populace from all walks of life.

The Centre's role was to spread mass awareness and publicity through online and print media. The centre designed and printed programme banners, posters, signages for signature campaign on green pledges, Greenathon stickers for green run and walk, certificates, Go Green stickers for vehicles. The centre coordinated eco-competitions (debate, seminar, paintings, quiz) at various school eco-clubs and publicized the event report online and print media in the form of newsletter.

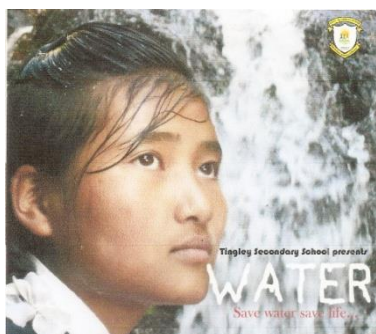
### 4. Sustainable Environment Initiative at Schools



As a part of a Nation-wide Sustainability Education Initiative under the National Green Corps (NGC) programme, eco-club schools from Sikkim actively participated and nurtured their creative skills while contributing to the regular environment conservation programmes. The month long programme was coordinated by ENVIS Centre at Department of Forests, Environment and Wildlife Management, Government of Sikkim in collaboration with Centre for Environment Education (CEE), North-East.

The month-long campaign during September 2014 focused on Biodiversity by engaging students in tree plantation and creative activities which helped them learn about the local tree, care for the trees and observe the way they grow. The campaign reached 20 schools across the State. The schools were provided with campaign flyers, posters, worksheets etc. The main objectives of the campaign were to inculcate a sense of appreciation among school students about diverse life forms, the biodiversity around them and to inspire and engage them in the protection of biodiversity for sustainability through activities. A **“Creative Expressions”** competition on the theme **“Life”** or **“Life forms** including Paintings, Poems, Slogan design and Photography was conducted on the occasion of **World Ozone Day** on 16<sup>th</sup> of September, 2014 as a part of awareness programme.

### 5. Compilation of 20 Eco-Club Success Stories from Sikkim



ENVIS Centre compiled 20 eco-club success stories from Sikkim and sent the compilation to regional office of CEE at Guwahati for National level publication of 100 success stories of the country.

This rigorous exercise involved collection and scrutiny of more than 500 reports from the school eco-clubs. After screening the reports, the best 20 stories were selected in consultation with the Centre for Environment Education cell of the North-East. The national publication is awaited for official release.



## 6. Swachh Bharat Swasthh Sikkim



ENVIS Centre made extensive coverage and publicized the State-wide activities on Swachh Bharat Abhiyan. The centre reached to school eco-clubs and public for generating awareness and spreading the campaign activities at a wider level. ENVIS portal highlighted the event information and the centre also published newsletter with a special coverage on Swacch Bharat Swasthh Sikkim focusing on solid waste and healthcare waste management.

## 7. Pre-workshop on National Environment Awareness Campaign for Sikkim



A pre-proposal workshop for National Environment Awareness Campaign 2014-15 was held on 18<sup>th</sup> October 2014 to discuss on various awareness and action activities to be carried out by the Participant Agencies (PAs) at the local level. This day long workshop was organized by ENVIS Cell, Forest Environment & Wildlife Management Department at the ENVIS Library – cum- meeting hall. Representatives from ten participating NGOs attended the workshop.

## 8. Green Teacher's Training



ENVIS Centre at Forests, Environment & Wildlife Management Department, Government of Sikkim organized a Two-Day Green Teacher's Training programme for 200 schools on 27<sup>th</sup> and 28<sup>th</sup> of November 2014 at Forest Conference Hall in Deorali, Gangtok as an initiative towards strengthening the National Green Corps (NGC) programme being implemented in Sikkim. The inaugural session of the programme was chaired by the Hon'ble Minister Forest Shri Tshering Wangdi

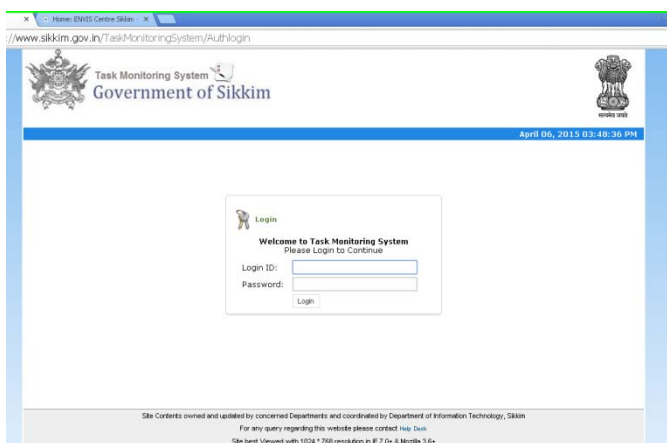
Lepcha, PCCF-cum-Principal Secretary Dr. Thomas Chandy IFS, CCF (T/ HQ) Shri C. S. Rao IFS and CCF/ OSD (Environment) –cum- Programme Coordinator (ENVIS) Shri B.K.Tewari.

## 9. Training of Frontline Forest Staff



ENVIS Centre was conducted training-cum-refresher course for frontline staff of the host department to empower the frontline staff with finger tip information for field level query and better understanding of the local environment. The centre highlighted the role of ENVIS in environmental information management for access of data and information which was beneficial for the field staffs.

## 10. Task Monitoring System



ENVIS cell represented the host department to undergo training on implementation of Task Monitoring System deployed by the Home Department, Government of Sikkim to keep track of various departmental assignments for timely execution. ENVIS Centre made the nodal in-charge for all web updation of the host department and implementation of online applications.

## 11. CMS VATAVARAN International Environment & Wildlife Film Festival and Forum



ENVIS centre conducted the State's first ever International Environment & Wildlife Film Festival and Forum. The event was co-organized with the Centre for Media Studies (CMS) New Delhi on 12-14 March 2015 at Gangtok. ENVIS Centre coordinated events such as film screenings, nature trail, green film making workshop for school students, teachers and youths.

## 12. Hosting of information in Digital Display Board



The host organization has installed a digital display board to inform the general public and visitors on the latest data, statistics and news on forestry, environment, wildlife, biodiversity, ecotourism and other environment related issues of the State. ENVIS has been the key source of information for displaying in this board.

## 13. Release of ENVIS Publications 2014-15



Release of PANDA Newsletter by the Hon'ble Minister (Power) Shri D. D. Bhutia and Hon'ble Minister (Forest) Shri T. W. Lepcha on the occasion of State-level World Environment Day celebration at Namchi, South Sikkim on June 5, 2014



Release of Paryavaran Mahotsav activity booklet, posters, stickers by the Hon'ble Minister (Forest) Shri T. W. Lepcha and other dignitaries on the occasion of launching ceremony of Paryavaran Mahotsav 2014 at M G Marg Gangtok June 15, 2014



Release of Eco-Club Handbook by the Hon'ble Minister (Forest) Shri T. W. Lepcha along with PCCF cum Principal Secretary Dr. Thomas Chandy and CCF Shri C. S. Rao during the inaugural programme of Green Teacher's Training on November 27, 2014.



ENVIS CENTRE SIKKIM CELEBRATED BISWAKARMA PUJA ON 17<sup>TH</sup> SEPTEMBER 2014